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Biology of *Rhynocoris squamulosus* (Heteroptera: Reduviidae) fed on developmental stages of *T. castaneum* (Coleoptera: Tenebrionidae)

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1 SUMMARY

Reduviidae are beneficial natural enemies in agroecosystems due to their pest regulating action. Given their importance, knowledge of their biology with a view to their use as a biological agent is increasingly considered. It is in this target that the biology of *R. squamulosus* (Heteroptera: Reduviidae) was conducted, using as surrogate prey, *Tribolium castaneum* (*red flour beetle*). The results show that the female spawns take place 17.63 ± 2.69 days on average after pair formation. The experiment was set up to know the pre-oviposition period of female. The eggs of *R. squamulosus* female are laid in clusters and mostly high on the lid of the breeding jar (88.02%) which 93% on the muslin. Embryonic development of *R. squamulosus* was observed in 79.18% of the eggs and the incubation duration average is nine days. The larvae from these eggs go through five successive moults (stages) before becoming adults. The development time of these larvae varies significantly from stage to stage regardless of the stage of prey (T*ribolium castaneum*) consumed. The mean development time and larval mortality rate are reduced in the presence of larvae only in the presence of *T. castaneum* nymphs. On the other hand, in the presence of the adults of the prey, all the larvae die at stage 1. Knowledge of the biological parameters of this predator allows its mass rearing and its use as a biological control agent in the regulation of crop pests.